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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/974,881

10/12/2001

Takashi Nose

Q65614

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01/19/2005

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/974,881

Applicant(s)

NOSE, TAKASHI

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/11/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Application has been examined. The claims 1-9 and 11-25 are pending. The examination results are as following.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 8, 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogawa (US patent 6,597,339).

Ogawa discloses in figure 1, a liquid crystal display (18) comprising a display panel; a back light (26) irradiating through the display panel; and a back light control circuit (24) controlling a brightness of said backlight (see back light drive circuit 24 can vary the luminance level of the back light 26, see column 4, lines 38-42), wherein said brightness of said back light is set to a first predetermined brightness when said display panel displays a dynamic image (see a plurality of adjustable luminance levels, and level 1 indicates 100%, or highest luminance, see column 5, lines 14-26) and said brightness of said back light is set to a second predetermined brightness when said display panel displays a static image (see the luminance of the back light 26 is at level 1 (100%) is change to low level 2 (70%) because back light on a basis of the battery or lapse of time to save the power consumption, and levels association with images displayed on the LCD, see figure 6, column 7, lines 50-54 and column 8, lines 14-17), wherein the first

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predetermined brightness is greater than the second predetermined brightness at a first period than at a second period (see the level 1 is 100% and level 2 is 70%); wherein the back light control circuit said light based on an image discriminating, and a controlling (14) said the display panel in response to the images (see figure 1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (US patent 6,597,339) in view of Furuhashi et al. (US patent 5,818,409).

Ogawa discloses in figure 1, a liquid crystal display (18) comprising a display panel; a back light (26) irradiating through the display panel; and a back light control circuit (24) controlling a brightness of said backlight (see back light drive circuit 24 can vary the luminance level of the back light 26, see column 4, lines 38-42), wherein said brightness of said back light is set to a first predetermined brightness when said display panel displays a dynamic image (see a plurality of adjustable luminance levels, and level 1 indicates 100%, or highest luminance, see column 5, lines 14-26) and said brightness of said back light is set to a second predetermined brightness when said display panel displays a static image (see the luminance of the back light 26 is at level 1 (100%) is change to low level 2 (70%) because back light on a basis of the battery or lapse of time to save the power consumption, and levels association with images displayed on

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the LCD, see figure 6, column 7, lines 50-54 and column 8, lines 14-17), wherein the first predetermined brightness is greater than the second predetermined brightness at a first period than at a second period (see the level 1 is 100% and level 2 is 70%); wherein the back light control circuit said light based on an image discriminating, and a controlling (14) said the display panel in response to the image (see figure 1). However, Ogawa does not disclose that wherein the display panel comprises a plurality of cells, and a scanning lines. Furuhashi et al. disclose in figure 12 and 18 that a LCD comprises a plurality of cells and the display having a scanning lines (see column 14, lines 66-67 and column 15, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Furuhashi et al. with plurality of cells and scanning lines into the device of Ogawa because this would be selected simultaneous scanning and driving of a plurality of row in a liquid crystal display unit.

5. Claims 11-12, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (US patent 6,597,339) in view of Furuhashi et al. (US patent 5,818,409) as applied to claims 1, 5 above, and further in view of Hirano (US patent 5,894,304).

Ogawa discloses in figure 1, a liquid crystal display (18) comprising a display panel; a back light (26) irradiating through the display panel; and a back light control circuit (24) controlling a brightness of said backlight (see back light drive circuit 24 can vary the luminance level of the back light 26, see column 4, lines 38-42), wherein said brightness of said back light is set to a first predetermined brightness when said display panel displays a dynamic image (see a plurality of adjustable luminance levels, and level 1 indicates 100%, or highest luminance, see column 5, lines 14-26) and said brightness of said back light is set to a second predetermined

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brightness when said display panel displays a static image (see the luminance of the back light 26 is at level 1 (100%) is change to low level 2 (70%) because back light on a basis of the battery or lapse of time to save the power consumption, and levels association with images displayed on the LCD, see figure 6, column 7, lines 50-54 and column 8, lines 14-17), wherein the first predetermined brightness is greater than the second predetermined brightness at a first period than at a second period (see the level 1 is 100% and level 2 is 70%); wherein the back light control circuit said light based on an image discriminating, and a controlling (14) said the display panel in response to the images (see figure 1). Furuhashi et al. disclose a plurality of cells and scanning lines in the device, and a first frame and a second frame (see figure 27). However, Ogawa and Furuhashi et al. do not disclose a memory storing said first threshold value and detector and comparator detecting said ratio of the display panel. Hirano discloses in figure 6, a threshold circuit (13), a detector pen (3) and comparator (14) detecting in the liquid crystal panel (1) having a backlight (2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Hirano with a threshold circuit, a detector pen and comparator of the LCD into the device of Ogawa and Furuhashi et al. as discussed above because this would detect the period signal generation circuit to the gate lines and compare an output from the threshold setting circuit (see column 5, lines 43-53).

6. Claims 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al. (US 5,337,068) in view of Ogawa (US 6,597,339).

Regarding claim 21, Stewart et al. discloses in figure 1, a liquid crystal display device comprising: a liquid crystal display panel including a plurality of scanning lines, a plurality of signal lines intersecting said scanning lines, and a plurality of driving elements, each disposed at

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an associated one of intersections of said scanning lines and said signal lines, the crystal display panel having an inherent activated two times during one frame period and each of said signal lines is supplied with image data during one of said two times and with a signal unrelated to the image data during the other of said two times. However, Stewart et al. does not disclose a backlight unit provided to illuminate said liquid crystal display panel; and a control/drive circuit controlling and driving said liquid crystal display panel to enable a display of a dynamic image and a static image, wherein said control/drive circuit is adapted, when said dynamic image is displayed, to perform a dynamic display mode in which each of the scanning lines contained in at least a dynamic image displaying portion of said liquid crystal display panel. Ogawa et al. discloses in fig. 1 a backlight unit (26) provided to illuminate said liquid crystal display panel; and a control/drive circuit controlling (24) to enable a display of a dynamic image and a static image (see high level of illuminating of 100% and low level 70%), wherein said control/drive circuit is adapted, when said dynamic image is displayed, to perform a dynamic display mode. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the dynamic image and a static image (low or high level of illuminating) as taught by Ogawa into the system of Stewart et al. having a plurality of scanning and signal lines because this would alter the luminance of the backlight, and the respective luminance levels may be association with images displayed on the LCD.

Regarding claims 22-23, Stewart et al. discloses and inherent that wherein, between first and second does not disclose that the display device, wherein between first and second activations of one of the scanning lines, at least another one of the scanning lines is activated (see column 5, lines 54-60). However, Stewart et al. does not disclose that the back light unit is

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controlled to illuminate said liquid crystal display panel upon displaying said dynamic image more brightly than upon displaying said static image. Ogawa discloses the back light unit is controlled to illuminate said liquid crystal display panel upon displaying said dynamic image more brightly than upon displaying said static image (see a plurality of luminance levels highest is 100% and lowest is 70%).

Regarding claims 24-25, Stewart et al. disclose in figure 4 that wherein said control/drive circuit (412) is adapted. However, Stewart et al. does not disclose when said static image is displayed, to perform a static display mode in which each of the scanning lines contained in at least static image displaying portion of said liquid crystal display panel is activated once during one frame period and each of said signal lines is supplied with image data during the activation of the scanning. Ogawa discloses in figure 4, a static display mode (see lowest level 30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the static display mode as taught by Ogawa into the system of Stewart et al. having a plurality of scanning and signal lines because this would alter the luminance of the backlight, and the respective luminance levels may be association with images displayed on the LCD.

Response To Arguments

6. Applicant's argument filed on 4-20-04 has been fully considered but they are not persuasive.

Applicant argues that Ogawa fails to teach that the brightness of a back light of a liquid crystal display panel to a particular brightness setting when the display panel is presenting a dynamic image. However, examiner respectfully disagrees with the argument because Ogawa

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discloses the brightness of a back light of a liquid crystal display panel to a particular brightness setting when the display panel is presenting a dynamic image (see fig. 4, see backlight level of 100%). For these reasons, the rejections are maintained.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

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Or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,
Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

Kimnhung Nguyen
January 14, 2005



**ALEXANDER EISEN
PRIMARY EXAMINER
TECHNOLOGY CENTER 2600**